

STATE BUILDING CODE INTERPRETATION NO. I-69-00

November 13, 2000

The following is offered in response to your letter in which you request an interpretation of the provisions of section 1021.3 of the BOCA National Building Code/1996 portion of the 1999 State Building Code.

Question: Does a pipe guard rail consisting of 1 inch O.D. vertical members spaced 48 inches O.C. and 7/8 inch O.D. horizontal members with 1 ¼ inch space between them meet the provisions of section 1021.3 of the BOCA National Building Code/1996 portion of the 1999 State Building Code with respect to not providing a ladder effect?

Answer: No. The intent of the code with respect to ladder effect is to prevent small children from climbing over a guardrail and falling. Although the code does not define ladder effect in this section, or give specifics as to what is and what is not climbable (for this reason, the language was deleted from the 2000 International Building Code), one can look to code requirements for swimming pool barriers for guidance. It is clear that the intent of a swimming pool barrier is also to prevent small children from climbing over the barrier. Item 4 of section 421.10.1 tells us that when a pool barrier is composed of both horizontal and vertical members and the tops of the horizontal members are less than 45 inches apart (as in your proposed design), the spacing between vertical members must be no greater than 1 ¾ inches (yours are 48 inches +/-). In order to meet the intent of the code for not providing a ladder effect, you must limit the space between vertical members as well as limiting the space between horizontal members.